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NO. OF ENCLS. 6 (Annexes 2
(LISTED BELOW) & 30)

SUPPLEMENT TO
REPORT NO.

2. History:

The plant was an old factory, part of which was destroyed during the war. When the German armed forces approached the Soviets took the factory machines to the Urals. According to a Soviet engineer an aircraft engine factory of the same type was set up in the Gmsk area and laid out in accordance with the plans of this factory. During the war the plant was a repair shop for engines of the Bf 109 and Junkers types. The shop was installed by the German air force. The reconstruction of the plant was started by the inmates of the former P/ Camp 100, the present numerical designation of which is 7100/1, in July 1944 and is not yet completed.

3. arrangement:

Director Ovziatoff and Chief Engineer Koserov.

4. Designation:

Aircraft Engine Plant

CLASSIFICATION CONFIDENTIAL

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5. Plant Layout: (Annexes 1 through 3)

a. Zone I (Annex 2). Parenthesized figures refer to Annex 2.

Main entrance to the aircraft engine factory with guard-house (2). Korpus 18 (5). This 150x70x8-m building was a new steel-frame brick construction, completed by Pys in October 1948. It presumably housed an assembly shop and a small parts workshop. Production was started in late 1949, the machines being installed by the Soviets. After the brickwork was completed the building was off limits to Pys.

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Machine shop (6). This concrete building, 70x50x9 meters, was destroyed and reconstructed by Pys in 1946/1947. Components were assembled there. This installation was off limits to Pys.

Engine test stand I (7): Running stand and test rooms. [redacted] more detailed information on the engine stand I. [redacted] entered the building as it was very strictly guarded. Engine buzzing was heard there all the time [redacted] Soviet supervisors that the installation in question was the engine test stand I. It was 50x30x8 meters.

Forge (8). This building was a 20x10x5-meters brick construction. The work done there pertained exclusively to the construction of the factory.

Carpentry (9). This brick building was 20x10x5 meters. This installation also served only for the construction of the factory.

Quins (10). The concrete factory with a stone crushing machine was housed there.

Building office (11). This installation was for the construction of the factory. [redacted] building office.

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Forge (13) with heating installation. Three annealing furnaces, fired with coal. The basement housed a central heating installation. [redacted] Bolts, screws, nuts and angular irons for fitting the engines and suspending arrangements were produced. It was an old brick building, 12x5x4 meters. There was a brickwork layer, 15 meters high. [redacted] to order small [redacted] work.

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Forge (14). Four annealing furnaces, several small hammers, drilling, stamping and milling machines were there and small parts for the engine construction were produced. When passing [] this forge through the open door. It was an old brick building, 13x10x8 meters.

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Warehouse (16). Raw material and rolled sections of every type were stored there. Part of the building had been destroyed and was not yet reconstructed. It was a 30x10x9-meter brick construction.

Offices and guardroom for the factory police (17).

Korpus 15 (18). The new administration building, 12 meters high, was under construction. Workers of the factory were temporarily housed there. [] construction of this installation.

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Warehouse (19). Aluminum, brass and copper, plates and bars of every thickness and size were stored on the first floor of this warehouse. The second and third stories housed office rooms for Korpus 15.

Old foundry (20). Three large coke-fired melting furnaces and two manually operated traveling cranes were here. This foundry was for mold and core making. Engine cases and cylinders were cast. [] this installation [] bordered on the foundry area. One brickwork layer, 20 meters high.

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Foundry II (21). new building under construction, 98x60x12 meters. This building was scheduled for completion by late 1950. [] It was a concrete-frame brick construction with a steel truss roof. A craneway for a 17-ton crane was installed there.

Old gasoline station with oil storage (22). This installation, not in operation, was scheduled for attachment to the Foundry II.

Korpus 15 (buildings 18 through 22 - 150x120x12 meters).

New gasoline service station (23).

Three large and three small tanks were dug in. The large ones, containing gasoline, were of the Pullmann type and the small ones, for oil, were 10 meters long and 3 meters in diameter. Three oil and gasoline pumps were available. This service station had one office and a fire guardroom of its own. There was also a special barbed-wire fence. []

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[] as it adjoined the building yard of Korpus 77. Korpus 77 (24) under construction (see Annexes 3 and 4). This building was 98x49.6x12.95 meters

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and had concrete columns and a steel truss roof. Roof construction: The steel truss supported reinforced concrete slabs with slag and/or slag wool, which were covered by a cement layer 2 to 3 cm thick and two layers of rubberoid insulating felt. This covering was applied to the skylight part of the roof (see Annex). The other part of the steel truss was covered by a bituminous layer, 3 cm thick. The weight of the principal trusses was about 1,280 kg. The basement ceiling of this building consisted of 80-cm beams of reinforced concrete which supported 10-cm concrete slabs. The depth of the basement was 2.6 meters. The concrete columns, which supported the roof, were 5 meters underground and 0.38x0.50x8 meters high. Seventeen concrete columns of this type were constructed on one side of this Korpus. 15 November 1949 was the target date for the completion of the Korpus section reaching up to axis 10. This was evident from the plans.

(24a). It was planned to install a foundry with six special casting furnaces in the workshop reaching up to axis 10. Three casting furnaces were installed in October and November 1949. The outside of these casting furnaces was a steel casing lined with fireclay stones. Each casting furnace was 2.70 meters in diameter and 4.65 meters high. These furnaces were hot-air fired. It was planned to install two electric melting furnaces there. The bases for these two electric melting furnaces were under construction and they were presumably installed in early 1950.

A fire wall was constructed between these two electric furnaces, crossing the entire width of the workshop. A transformer station for two large oil transformers was also installed there. The cable to feed this station with electricity was embedded about 50 cm underground on the western side and outside of the building. The transformer station housed one switching room. A large ventilation bottle and a large 17-ton traveling crane were also installed there. A sand bunker of reinforced concrete construction was under construction. The Soviets started the construction of this Korpus in May 1949 but suspended the work some weeks later, resuming it in June 1949 after the building plans were greatly altered. A basement was under the room which housed the six melting furnaces and the ventilation bottle (refer to ground plan sketch). Another basement was under the middle part of the workshop where the two electric melting furnaces were to be installed. This building was connected to a sewerage system 2.8 meters deep. The water conduit was 1.5 meters underground. Ninety PWS and 150 civilians were employed in the construction of this Korpus.

(24b). It was planned to temporarily store raw material and finished goods in this room. The entire western side of Korpus 77 was to have a loading platform, the construction of which was started in mid-November 1949. A railroad spur track of Soviet gauge was completed. This building was connected to a long distance heating system, conduit being 2 meters underground. The windows of this building were 2.22 meters wide and 7.2 meters high. The doors were 3 meters wide and 2.60 meters high. The compartment walls

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between the individual departments were 38 cm thick. office for korpus 77, under construction (25). This concrete building was 49.6x12x12.5 meters. The building yard of korpus 77 was enclosed by a board fence, 2.5 meters high, [redacted] the plant, and was very strictly guarded.

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Warehouse with loading platform (26). Component parts for aircraft engines, cables and spark plugs were stored there. [redacted]

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was interested in its contents. This concrete building was 50x15x6 meters.

Machine shop (27). Engine components were manufactured here. [redacted] department as it was very strictly guarded by the factory police. [redacted] frequently observed [redacted] large boxes, in which the component parts were packed, were taken from this building to korpus 33. This concrete machine shop was a 50x15x6-meter construction.

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korpus 33, office for korpus 33 (28) and supervisors' apartments. This four-story brick building was 60x15x12 meters.

engine test stand II and assembly shop (29). According to a soviet supervisor an engine test stand was in this building. [redacted] details on the dimensions or the goods manufactured here. It was very strictly guarded. Zone I was enclosed by a 2.5-meter brick wall and covered about 1,100x400 meters. It was strictly guarded by the factory police.

b. zone II (Annex 5). The parenthesized figures refer to Annex 5. [redacted] into this zone.

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(1) Manufacturing shop: An old building, 170x30x6 meters. [redacted] details on the production and the installation.

(2) Manufacturing shop: Also an old building, 170x30x6 meters. No details.

(3) Engine test stand III: This building was a 30x30x10-meter brick construction. [redacted] the buzzing of engines and chief engineer Komarov confirmed [redacted] assumption was correct.

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(4) Engine storage yard: About 150 aircraft radial engines of a modern type, covered with tarpaulins, were stored here. Several engines were uncovered [redacted]

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(5) Fire department: [redacted]

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had been planned to reconstruct part of this building but that plan was given up.

(7) Outside apartment block for the Zone II workers: No Pws were employed in Zone II. It was enclosed by a brick wall 2.5 meters high. It was about 1,000x100 meters and strictly guarded by factory police.

c. Zone III (Annex 6). Parenthesized figures refer to Annex 6. [redacted] this zone as Pws did some construction work there.

(1) Transformer station: This station, 15x12x8 meters, was constructed by Pws in 1949. Two oil transformers, which were put into operation in October 1949, were installed. One switching room was there.

(2) Foundry: The foundry housed two electric melting furnaces of American origin and two coal-fired casting furnaces, installed in October 1949. There were also two small oil transformers (Tr) with switching station (3). The entire building was floored with ribbed cast iron slabs. Basements were under some parts of the building (see Annex 6). It was constructed by Pws in 1948 and 1949. It was 70x50x30 meters and a concrete-frame brick construction. One brickwork layer, 20 meters high. There was a 12 meter basement.

(3) underground basements (bunkers): Gasoline and oil are presumably to be stored here. [redacted]

[redacted] October Revolution Day 1949 was the target date for putting Zone III into operation but there may have been a delay of several weeks. This 120x95-meter zone had a special enclosure which was partly a barbed-wire fence and partly a brick wall. It was very strictly guarded (factory police). All buildings were in good condition. A railroad spur track of Soviet gauge was available. Part of the access road was paved, part bituminized. It was in average condition.

6. Work force:

Two hundred Pws worked on the construction of Korpus 77 and the administration building of Korpus 15. In Zone I, about 2,100 civilians were employed in three shifts. In Zone II, about 400 civilians in each of three shifts. In Zone III, there were only 25 civilians in each shift. Production was not started in Zone III. The workers were installing machine tools there.

7. Production:

a. Two different types of aircraft engines were produced in the aircraft engine [redacted] according to a Soviet skilled worker the engines of the old type were to be installed in the so-called hooded-crow aircraft type. Judging

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from the engine sound, the engine of the new type was much stronger than that of the old one. This noise was a singing high, even sound while that of the older type was a chopped sound. (Initial r).

According to the said Soviet skilled worker, so far one engine of the new type per shift was produced. However, this plant had three engine test stands which were in operation at a rate of 60 percent per day. Hence, the rate of production may be far higher. the engines stored in the open in Zone II (4) Some engines were covered. These engines were of the new type which was manufactured for the first time in this year.

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that new aircraft engines were stored there. the power of this engine at from 800 to 1,000 HP. Its size by far exceeded that in the small U2 aircraft type. The number of engines of this type produced in 1949 was low. It is said to be a 400-HP engine.

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the air force about the engines and learned that their opinions were estimates.

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b. Part of Zone I was still under construction, but production had been started in another part. Zone II was in full operation and Zone III was being constructed. Production was to start in Zone III on October Revolution Day.

c. outgoing shipments of aircraft engine components and complete aircraft engines. summed that outgoing shipments of this type were made only at night.

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8. Sixty percent of the machines installed in the plant was of German make, 15 percent of Finnish and the rest of Soviet make.

9. The laboratory, where Pys were also employed, contained a great many electric measuring apparatus of American and British make. measuring apparatus when Pys employed there. However could not furnish any details.

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10. All the canals of the long-distance heating system of the plant were 2 meters underground. The sewerage system was 2.8 meters and the water conduit 1.5 meters underground.

11. It was planned to extend the plant to the area between Zone I and the Saprozhe railroad main station. Part of the land had been surveyed.

12. Air defense measures were not observed. Several buildings had basements.

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13. A fire department was organized.
14. Electricity was supplied by the Zaporozhe power plant.

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[] comment:

This report furnishes a good description of the new installations of the Zaporozhe engine factory from a constructional point of view. The sketch attached to a previous report * is largely in accordance with the large-scale layout as now indicated.

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[] the productional processes was poor and the rates of production indicated by him are generally based on hearsay. This report also confirms that two types of radial engines, one of which is probably the Agch-21 type, are produced there. A 400-HP radial engine was not reported. The power of the M-11 type, which is the next smaller radial engine to the Agch-21, is as low as 160 HP. The reference made in para 7 to the U-2 aircraft type seems to indicate the M-11 engine but actually the aircraft type in which this engine is installed is meant by the reference.

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[] was previously reported [] of this plant. ** However, this was done with reserve as the designation of [] might be that of the constructional management. This assumption is probably right, []

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[] had to do only with the constructional management. [] the Zaporozhe engine plant is still considered believable.

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A careful check of the present report and comparison with previous information furnished by repatriated PWs leads to the assumption that the construction of additional buildings, the installation of new electric melting furnaces and the strict MVD guard system may be linked with a partial conversion of the plant to the production of jet power sets.

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- 6 Annexes: (1) Location sketch of Aircraft Engine Plant [] in Zaporozhe
- (2) Layout sketch of Zone I of the Aircraft Engine Plant []
- (3) Installation sketch []
- (4) Layout sketch of "Corpus 77" of Aircraft Engine Plant [] in Zaporozhe
- (5) Layout sketch of Zone II of Aircraft Engine Plant []
- (6) Layout sketch of Zone III of Aircraft Engine Plant [] in Zaporozhe.

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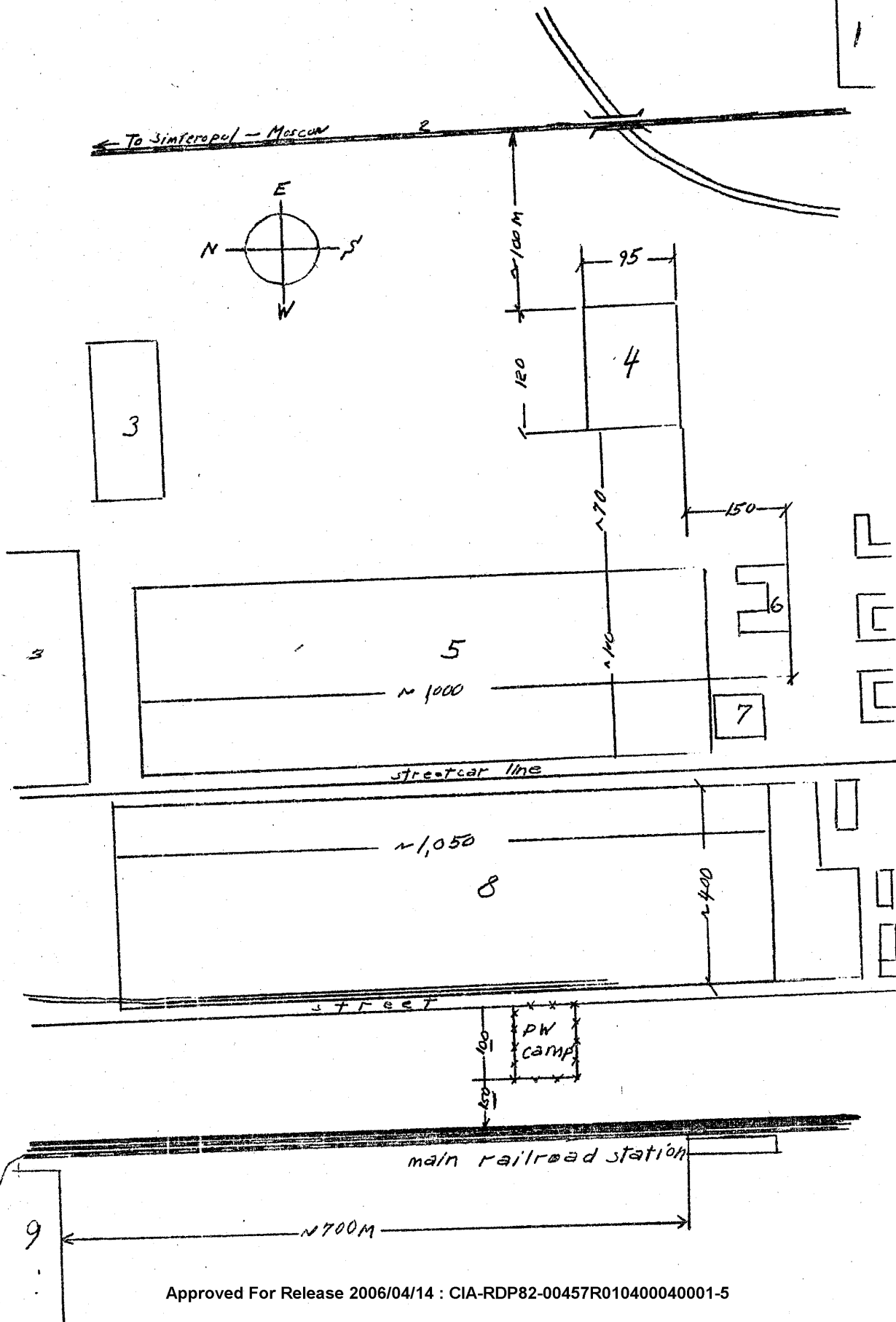
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Annex 1

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Annex 1/2

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Legend to Annex 1

1. Brick works
2. Moscow - Simferopol RR line
3. Block of dwelling houses
4. Zone III of plant
5. Zone II
6. Dwellings for workers of Zone II
7. Fire station
8. Zone I
9. Locomotive repair shop

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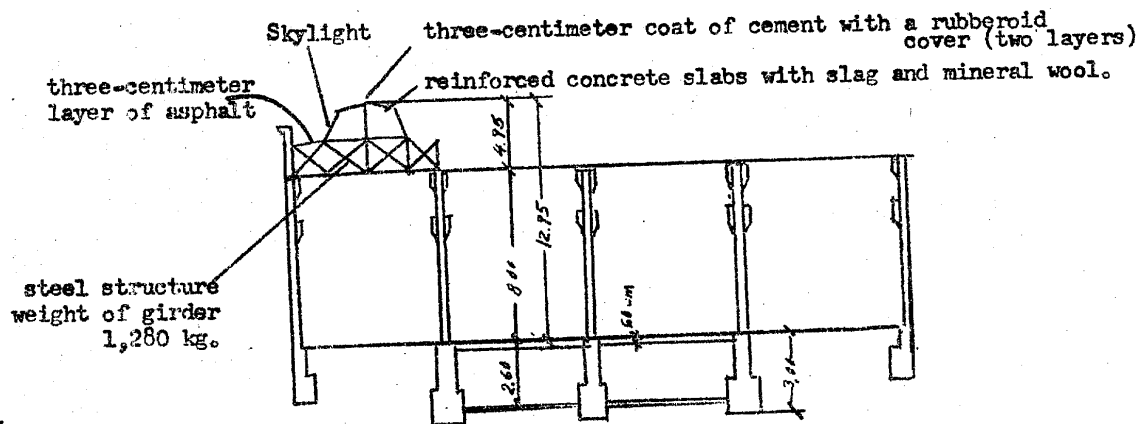
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Annex 4

Layout Sketch of Korpus 77 of Aircraft Engine Plant at Zaporozhe

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Section A-D

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Layout Sketch of Zone II of Aircraft Engine Plant
at Zaporozhe

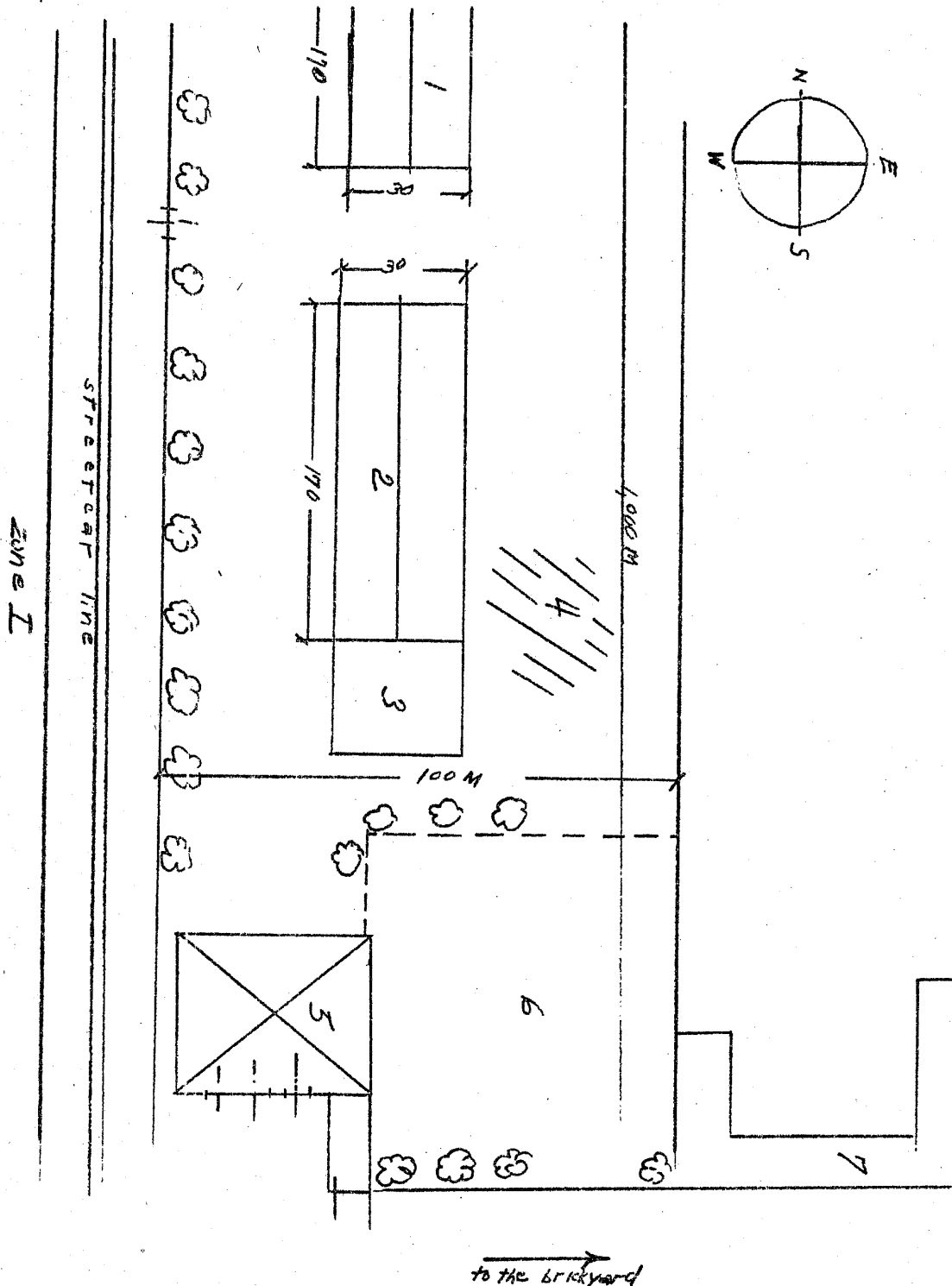
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Legend

1. Production shops
2. Same as 1
3. Engine test stand III
4. Engine storage site
5. Fire station
6. Training grounds
7. Quarters for plant workers



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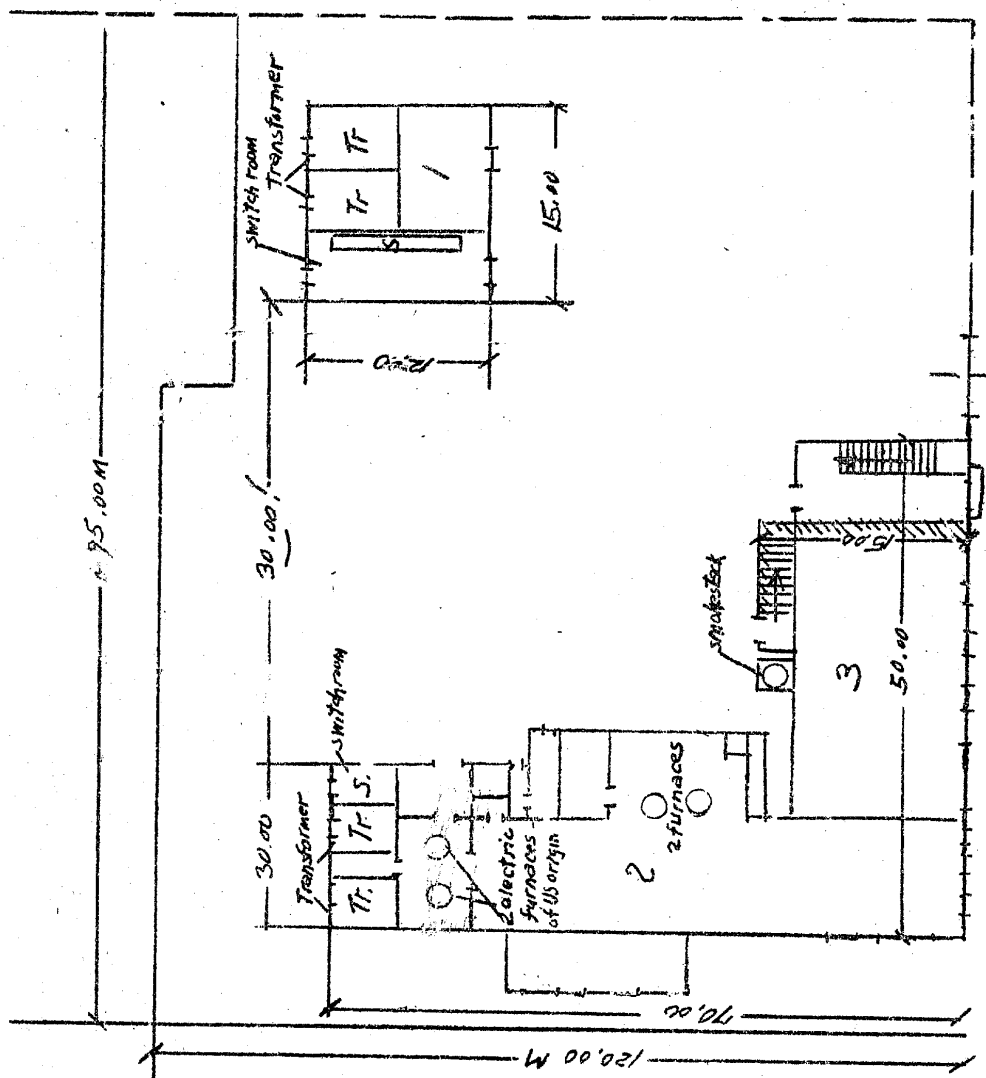
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Annex 6

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Layout Sketch of Zone III of Aircraft Engine Plant

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at ZaporozheLegend:

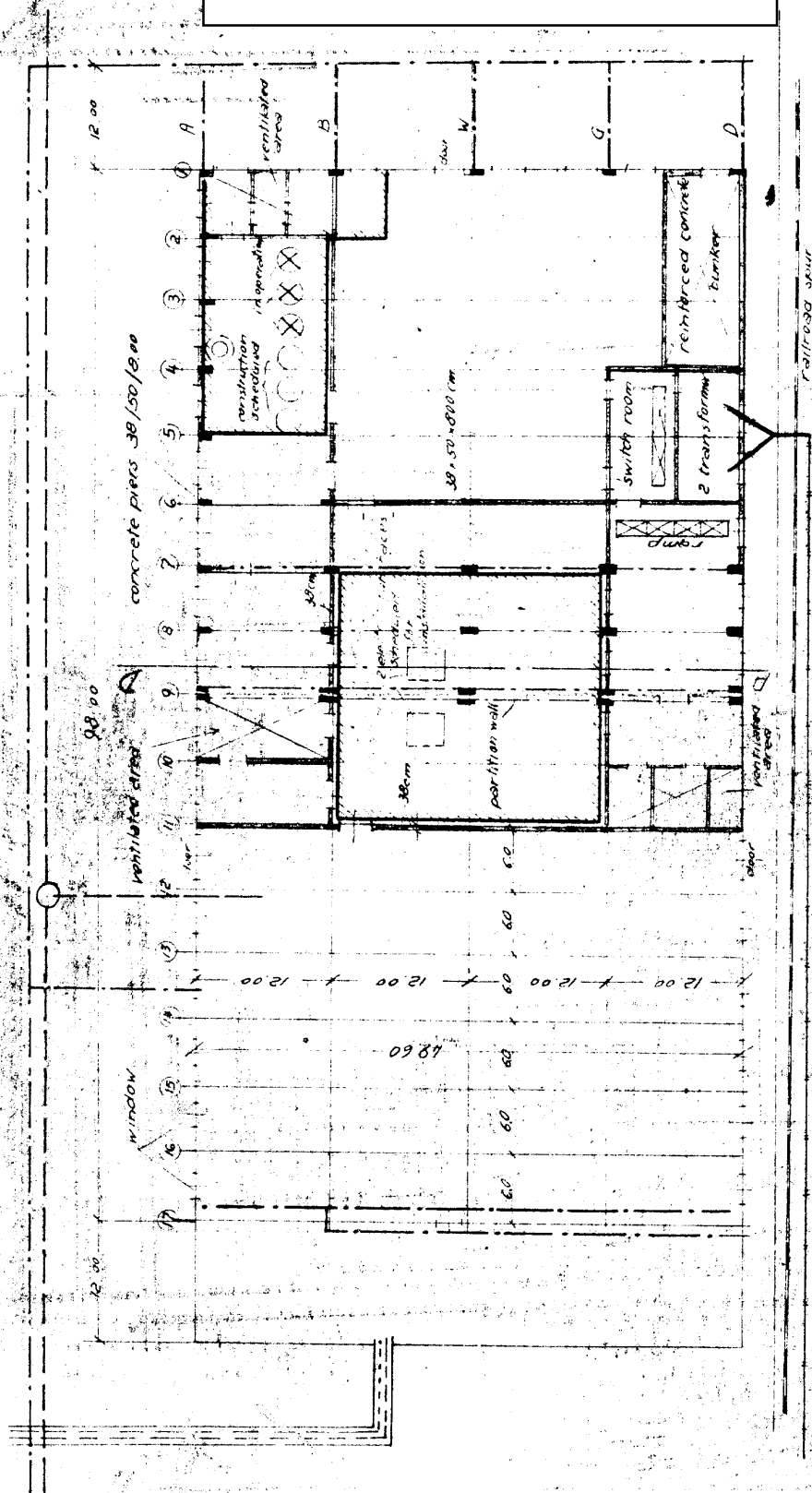
1. Transformer station
2. Foundry
3. Basement scheduled to serve as workshop but not yet furnished.

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Annex 3

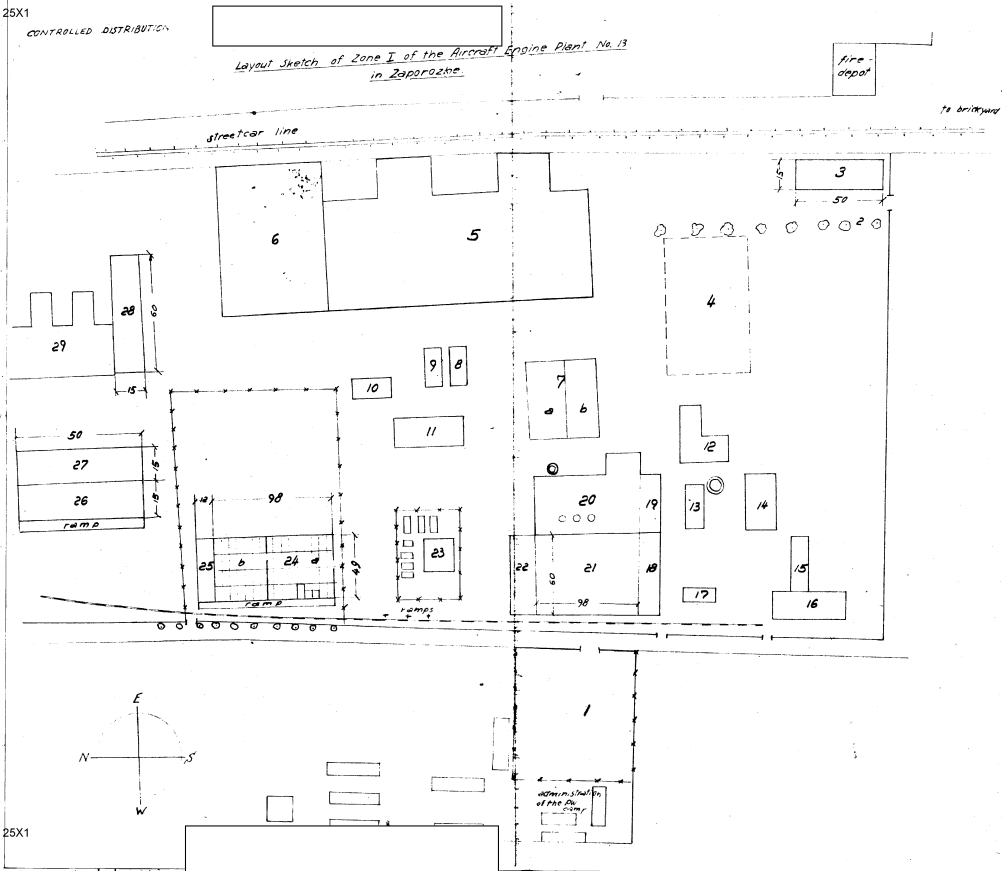
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- Legend:
- = Canalization, -2.80 m
 - - - = Water main, -1.50 m
 - = Long-distance heating system, -2.00 m
 - = Electric cables, -0.50 m

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Layout Sketch of Zone I of the Aircraft Engine Plant, No. 13
in Zaporozhne



Legend:

1. Pt. camp
2. Main gate
3. Administration
4. Rallying point for work force
5. Workshop No. 18
6. Mechanical workshop
7. Engine test stands
8. Forge
9. Carpentry
10. Concrete plant
11. Construction bureau
12. Laboratory and electro-mechanical tests
13. Forge and heating installation
14. Forge and mechanical workshop
15. Garage
16. Machine
17. Office and guardhouse
18. "Korpus 20.15", office
19. Magazine
20. Oil foundry
21. Foundry II, under construction
22. Oil fuel dump, no longer in operation
23. Fuel dump
24. a) Transformer station under construction
b) "Korpus 77" scheduled to start production on 15 Nov. 49.
25. Offices
26. Magazine
27. Mechanical workshop
28. "Korpus 33", offices
29. Engine test stand II.